

WHAT IS CLAIMED IS:

1. A control system for remote-controlled aircraft, comprising:  
a receiver for receiving control signals from a transmitter;  
a control module in communication with said receiver and at least one  
5 aircraft flight control system, wherein said control module comprises  
instructions that, when executed, send modified control signals to said flight  
control system; and  
a positioning module in communication with said control module, said  
positioning module providing positioning signals representing the current  
10 attitude of the aircraft to said control module.
2. The guidance system of Claim 1, wherein said guidance signals and said  
modified guidance signals are pulse-width modulated signals.
3. The guidance system of Claim 1, wherein said guidance module  
comprises a microcontroller or a microprocessor.
- 15 4. The guidance system of Claim 1, wherein said aircraft flight control  
system is selected from the group consisting of: a servo, an engine, a rudder, an aileron  
and an elevator.
5. The guidance system of Claim 1, wherein said positioning module  
comprises an accelerometer.
- 20 6. The guidance system of Claim 1, wherein said instructions result in  
modified guidance signals being sent to said flight control system that place said aircraft  
in straight and level flight.
7. The guidance system of Claim 1, wherein said instructions, when  
executed, provide modified guidance signals to said at least one control system that  
25 result in said aircraft entering a predetermined flight pattern.
8. The guidance system of Claim 1, wherein said modified guidance signals  
comprise pulse-width modulated signals that are aligned along their leading edge.
9. The guidance system of Claim 1, wherein said instructions are stored in a  
memory.
- 30 10. The guidance system of Claim 9, wherein said memory is selected from  
the group consisting of a Random Access Memory (RAM), a Read Only Memory

(ROM), an Erasable Programmable Read Only Memory (EPROM) and an Electrically Erasable Programmable Read Only Memory (EEPROM).

11. A system for preventing crashes of a remote controlled aircraft, comprising:

5 a positioning module that determines the attitude of said remote controlled aircraft during flight;

a control module in communication with said positioning module and with control signals received from a transmitter; and

10 said control module comprising instructions for determining when said aircraft is at risk of crashing and, responsive to said determination, providing modified control signals to at least one aircraft flight control system, wherein said modified control signals reduce said risk of crashing said aircraft.

12. The system of Claim 11, wherein said guidance signals and said modified guidance signals are pulse-width modulated signals.

13. The system of Claim 11, wherein said guidance module comprises a microcontroller or a microprocessor.

14. The system of Claim 11, wherein said at least one aircraft flight control system is selected from the group consisting of: a servo, an engine, a rudder, an aileron and an elevator.

15. The system of Claim 11, wherein said positioning module comprises an accelerometer.

16. The system of Claim 11, wherein said modified guidance signals being sent to said flight control system place said aircraft in straight and level flight.

17. The system of Claim 11, wherein said modified guidance signals being sent to said flight control system place said aircraft in a level flight circular pattern.

18. A method of modifying the flight pattern of a remote controlled aircraft, comprising:

reading control signals from a transmitter;

30 reading positioning signals corresponding to the attitude of said aircraft from a positioning module;

determining if said control signals will place the airplane outside of defined performance parameters; and

modifying said control signals so that performance of said airplane is within said defined performance parameters.

19. The method of Claim 18, wherein modifying said guidance signals comprises modifying said guidance signals so that said aircraft begins a straight and level flight.

20. The method of Claim 18, wherein modifying said guidance signals comprises modifying said guidance signals so that said airplane does not turn with an angle of greater than a preset number of degrees.

21. The method of Claim 20, wherein said preset number of degrees is selected from the group consisting of 20, 30, 40, 50, 60, 70, 80 and 90 degrees.

22. The method of Claim 20, wherein said positioning signals are generated by an accelerometer.

23. The method of Claim 20, wherein said guidance signals comprise pulse-width modified signals.

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